

Claims

1. Device (10) for generating a homogeneous powder-air mixture comprising a pressure section (24) and a suction section (26), wherein the two sections (24, 26) merge in an outlet (30), characterized in that the pressure section (24) terminates, in particular in an orthogonal direction, in the suction section (26) in an ejector-like manner, wherein the suction section (26) is open to the surroundings.
2. Device according to claim 1, characterized in that a line (16) carrying an inhomogeneous powder-air pre-mixture terminates in the pressure section (24).
3. Device according to any one of the preceding claims, characterized in that the suction section (26) carries ambient air.
4. Device according to any one of the preceding claims, characterized in that the pressure section (24) is completely surrounded by the suction section (26).
5. Device according to any one of the preceding claims, characterized in that the pressure section (24) is jacketed by the suction section (26).
6. Device according to any one of the preceding claims, characterized in that the suction section (26) comprises several suction passages or openings (28) that feed to the surroundings.

7. Device according to claim 6, characterized in that these suction passages or openings (28) are uniformly distributed about the periphery of the suction section (26).
8. Device according to claim 6 or 7, characterized in that these suction passages or openings (28) are disposed in a radial direction.
9. Device according to claim 6 or 7, characterized in that these suction passages or openings (28) are at an angle with respect to the radius.
10. Device according to any one of the preceding claims, characterized in that the outlet (30) has a cylindrical design.
11. Device according to any one of the preceding claims, characterized in that the suction section (26) conically tapers in the flow direction.
12. Device according to any one of the preceding claims, characterized in that the outlet of an upstream mixer generating a powder-compressed air mixture terminates in the suction section (26).
13. Method for generating a homogeneous powder-air mixture, wherein a pressurized inhomogeneous powder-air pre-mixture is blown into a suction section (26) thereby suctioning ambient air, and is mixed with this ambient air in the suction section (26) and/or in an outlet (32) to form a homogeneous powder-air pre-mixture.
14. Method according to claim 11, characterized in that the ambient air is supplied to the inhomogeneous powder-air pre-mixture orthogonal to its flow direction.